Amendments to the Claims:

Please amend claims 1-2, 8, 31 and 44, and cancel claims 3, 6-7, 9-30, 33 and 35. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for producing a fucosylated glycoprotein, the method comprising:

contacting a recombinant fucosyltransferase protein with a mixture comprising a donor substrate comprising a GDP-fucose residue, and an acceptor substrate on a glycoprotein, wherein the acceptor substrate comprises an N-acetylglucosamine residue, under conditions where the fucosyltransferase catalyzes the transfer of the fucose residue from [[a]] the donor substrate to the acceptor substrate on the glycoprotein, thereby producing a fucosylated glycoprotein,

wherein the recombinant fucosyltransferase protein comprises a polypeptide having greater than 90% identity to an amino acid sequence ~~selected from the group consisting~~ of SEQ ID NO:~~2,~~ 4~~, 6, and 8~~.

2. (Currently Amended) The method of claim 1, wherein the polypeptide comprises an amino acid sequence ~~selected from the group consisting~~ of SEQ ID NO: ~~2,~~ 4~~, 6, and 8~~.

3. (Canceled)

4. (Original) The method of claim 1, wherein the polypeptide further comprises an amino acid tag.

5. (Original) The method of claim 1, wherein the method further comprises a step of purifying the fucosylated glycoprotein.

6-7. (Canceled)

8. (Currently Amended) The method of claim 1, wherein an acceptor substrate on the glycoprotein comprises Gal[[b]]**β**1-OR, Gal[[b]]**β**,3/4GlcNAc-OR, NeuAca2,3Gal[[b]]**β**1,3/4GlcNAc-[[Or]]**OR**, wherein R is an amino acid, a saccharide, an oligosaccharide, or an aglycon group having at least one carbon atom.

9-30. (Canceled)

31. (Withdrawn - Currently Amended) A method of making a fucosylated oligosaccharide, the method comprising:

contacting the recombinant fucosyltransferase ~~of claim 16~~ with a mixture comprising a donor substrate comprising a GDP-fucose residue, and an acceptor substrate comprising a sugar or oligosaccharide, wherein the acceptor substrate comprises an N-acetylglucosamine residue, under conditions where the fusion protein catalyzes the transfer of a fucose residue from the donor substrate to the acceptor substrate, thereby producing a fucosylated oligosaccharide,

wherein the recombinant fucosyltransferase protein comprises a polypeptide having greater than 90% identity to an amino acid sequence of SEQ ID NO:4.

32. (Withdrawn) The method of claim 31, wherein the method further comprises a step of purifying the fucosylated oligosaccharide.

33. (Canceled)

34. (Withdrawn) The method of claim 31, wherein the fucosyltransferase comprises an amino acid tag.

35. (Canceled)

36. (Withdrawn) The method of claim 31, wherein the acceptor substrate is Lacto-N-neo-Tetraose (LNnT).

37. (Withdrawn) The method of claim 36, wherein the fucosylated oligosaccharide is Lacto-N-Fucopentaose III (LNFP III).

38. (Withdrawn) The method of claim 31, wherein the mixture further comprises lactose, a β-1,3-N-acetylglucosaminyltransferase, and a β-1,4-galactosyltransferase.

39. (Withdrawn) The method of claim 38, wherein the β-1,3-N-acetylglucosaminyltransferase is a bacterial enzyme.

40. (Withdrawn) The method of claim 39, wherein the β-1,3-N-acetylglucosaminyltransferase is from *Neisseria gonococcus*.

41. (Withdrawn) The method of claim 38, wherein the β-1,4-galactosyltransferase is a bacterial enzyme.

42. (Withdrawn) The method of claim 41, wherein the β-1,4-galactosyltransferase is from *Neisseria gonococcus*.

43. (Withdrawn) The method of claim 38, wherein the fucosylated oligosaccharide is Lacto-N-Fucopentaose III (LNFP III).

44. (Withdrawn - Currently Amended) A method for producing a fucosylated glycolipid, the method comprising:

contacting the recombinant fucosyltransferase protein ~~of claim 24~~ with a mixture comprising a donor substrate comprising a <u>GDP-</u>fucose residue, and an acceptor substrate on a glycolipid, <u>wherein the acceptor substrate comprises an N-acetylglucosamine residue,</u> under conditions where the fucosyltransferase catalyzes the transfer of the fucose residue from [[a]] <u>the</u> donor substrate to the acceptor substrate on the glycolipid, thereby producing a fucosylated glycolipid,

<u>wherein the recombinant fucosyltransferase protein comprises a polypeptide having greater than 90% identity to an amino acid sequence of SEQ ID NO:4</u>.